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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/843,363	04/25/2001	Joshua Klipper	100.164US01	8972

7590 10/18/2006

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EXAMINER	
HAILE, FEBEN	
ART UNIT	**PAPER NUMBER**
2616	

DATE MAILED: 10/18/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/843,363	KLIPPER ET AL.	
	Examiner	Art Unit	
	Feben M. Haile	2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *March 27, 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-31* is/are pending in the application.

4a) Of the above claim(s) *1 and 2* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *3-31* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. In view of applicant's amendment filed March 27, 2006 the status of the application is still pending with respect to claims 1-31.

2. The amendment filed is sufficient to overcome the rejection of claims 1-31 based upon the Declaration that the Applicant's invention was conceived during the second half of 2000 and prior to October 2000.

3. The Applicant has cancelled claims 1-2, thus the Examiner has withdrawn them from consideration.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 3-31 rejected under 35 U.S.C. 103(a) as being unpatentable over Mitchell (6,442,134) in view of Cedrone et al. (6,538,987), hereinafter referred to as Cedrone.

Regarding claims 3, 7, 11, 15, 23, and 25, Mitchell discloses at a head end node **(figure 4, i.e. A)**: feeding traffic on two transmission rings **(figure 4)**; and summing all traffic received on the two transmission rings **(figure 4, i.e. A)**; at remote nodes

(figure 4, i.e. B-D): when a remote node detects a facility failure on one of the two transmission rings **(column 3 lines 45-51; "any node that has detected a fault on one of its incoming links sets an indication", hence receives/detects a signal informing it of a failure)**, transmitting forward alarm signals on the one of the two transmission rings **(column 3 lines 45-51; "any node that has detected a fault on one of its incoming links sets an indication", hence receives/detects a signal informing it of a failure)** and globally selecting the one transmission ring to transmit traffic and the other transmission ring to receive traffic from the head end node **(figure 4, "TX all traffic on both rings" & "If one ring fails, RX traffic from the other ring")**; and when a remote node receives a forward alarm signal, passing the forward alarm signal on the transmission ring on which the forward alarm signal was received **(column 3 lines 45-51; "any node that has detected a fault on one of its incoming links sets an indication", hence receives/detects a signal informing it of a failure)**; and globally selecting the transmission ring on which the forward alarm signal was received to transmit traffic **(figure 4)** and the other transmission ring to receive traffic from the head end node **(figure 4, "TX all traffic one both rings" & "If one ring fails, RX traffic from the other ring")**.

However, Mitchell does not disclose expressly a return alarm signals on the other transmission ring.

Cedrone discloses a system including a plurality of nodes interconnected by a primary and secondary ring **(figure 1)** where each node sends Continuity OAM cells on both rings **(figure 3)**.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the method of transmitting the Continuity OAM cells on both rings taught by Cedrone into the ring network disclosed by Mitchell. The motivation for such a modification is to provide to the nodes, in a timely manner, error information from which the nodes can detect path degradation without significant delay.

Regarding claims 4 14, 17, and 31, Mitchell discloses substantially all the claimed modified invention as specified above.

However, Mitchell does not disclose expressly when a remote node receives a return alarm signal, passing the return alarm signal on the transmission ring on which the return alarm signal was received; and globally selecting the transmission ring on which the return alarm signal was received to transmit traffic to the head end node and one of the two transmission rings to receive traffic from the head end node.

Cedrone discloses a system including a plurality of nodes interconnected by a primary and secondary ring **(figure 1)** where each node sends Continuity OAM cells on both rings **(figure 3)**.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the method of transmitting the Continuity OAM cells on both rings taught by Cedrone into the ring network disclosed by Mitchell. The motivation for such a modification is to provide to the nodes, in a timely manner, error information from which the nodes can detect path degradation without significant delay.

Regarding claims 5, 10, 18 and 21, Mitchell discloses wherein when a remote node detects a facility failure on one of the two transmission rings comprises when a

remote node receives a ring level failure alarm on one of the two transmission rings **(column 3 lines 45-51; "any node that has detected a fault on one of its incoming links sets an indication", hence receives/detects a signal informing it of a failure)**.

Regarding claims 6, 9, 13, 19, 22, 24, 26, 28, and 30, Mitchell discloses substantially all the claimed modified invention as specified above.

However, Mitchell does not disclose expressly at the head end node, terminating received forward and return alarm signals.

Cedrone discloses a system including a plurality of nodes interconnected by a primary and secondary ring **(figure 1)** where each node sends Continuity OAM cells on both rings **(figure 3)**.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the method of transmitting the Continuity OAM cells on both rings taught by Cedrone into the ring network disclosed by Mitchell. The motivation for such a modification is to provide to the nodes, in a timely manner, error information from which the nodes can detect path degradation without significant delay.

Regarding claims 8 and 12, Mitchell discloses wherein the head end node sums traffic from the first and second transmission rings **(figure 4, i.e. A)**.

Regarding claims 16 and 20, Mitchell discloses at a central unit **(figure 4, i.e. A)**: feeding traffic on two transmission rings **(figure 4)**; and summing all traffic received on the two transmission rings **(figure 4, i.e. A)**; at a plurality of remote nodes **(figure 4, i.e. B-D)**: when one of the plurality of remote units detects a facility failure on one of the two transmission rings **(column 3 lines 45-51; "any node that has detected a fault**

on one of its incoming links sets an indication", hence receives/detects a signal informing it of a failure), transmitting forward alarm signals on the one of two transmission rings **(column 3 lines 45-51; "any node that has detected a fault on one of its incoming links sets an indication", hence receives/detects a signal informing it of a failure)** and globally selecting the one of two transmission rings to transmit traffic and the other of the two transmission rings to receive traffic from the central unit**(figure 4, "TX all traffic on both rings" & "If one ring fails, RX traffic from the other ring")**; and when one of the plurality of remote units receives a forward alarm signal, passing the forward alarm signal on the one of the two transmission rings on which the forward alarm signal was received **(column 3 lines 45-51; "any node that has detected a fault on one of its incoming links sets an indication", hence receives/detects a signal informing it of a failure)**; and globally selecting the one of the two transmission rings on which the forward alarm signal was received to transmit traffic and the other of the two transmission rings to receive traffic from the central unit **(figure 4, "TX all traffic one both rings" & "If one ring fails, RX traffic from the other ring")**.

However, Mitchell does not disclose expressly a return alarm signals on the other transmission ring and wherein the forward and return alarm signals are ATM level operation, administration, and maintenance cells.

Cedrone discloses a system including a plurality of nodes interconnected by a primary and secondary ring **(figure 1)** where each node sends Continuity OAM cells on both rings **(figure 3)**.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the method of transmitting the Continuity OAM cells on both rings taught by Cedrone into the ring network disclosed by Mitchell. The motivation for such a modification is to provide to the nodes, in a timely manner, error information from which the nodes can detect path degradation without significant delay.

Regarding claims 27 and 29, Mitchell discloses a plurality of network elements including a central unit and a number of remote units **(figure 4, i.e. A-D)**: a plurality of ring segments coupled between adjacent network elements to form first and second transmission rings, wherein the central unit transmits data on the first transmission ring in the clockwise direction and transmits the same data on the second transmission ring in the counter clockwise direction **(figure 4; i.e. X & Y)**; wherein when a failure is detected on both the first and second transmission rings, adjacent network elements transmit a forward alarm signal on the transmission ring on which the network element detected a failure **(figure 4 and column 3 lines 45-51; "any node that has detected a fault on one of its incoming links sets an indication", hence receives/detects a signal informing it of a failure)**, and wherein when a failure is detected or a forward alarm signal is received by one of the number of remote units, the receiving remote unit selects the ring carrying the failure data or alarm signal to transmit traffic and selects the other ring to receive traffic **(figure 4, "TX all traffic one both rings" & "If one ring fails, RX traffic from the other ring")**.

However, Mitchell does not disclose expressly a return alarm signals on the other transmission ring.

Cedrone discloses a system including a plurality of nodes interconnected by a primary and secondary ring **(figure 1)** where each node sends Continuity OAM cells on both rings **(figure 3)**.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the method of transmitting the Continuity OAM cells on both rings taught by Cedrone into the ring network disclosed by Mitchell. The motivation for such a modification is to provide to the nodes, in a timely manner, error information from which the nodes can detect path degradation without significant delay.

Response to Arguments

4. Applicant's arguments filed with respect to the rejection(s) of claim(s) 3-31 under 36 USC 103 (a) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

a) Shiragaki et al (US 6657952), Ring Network for Sharing Protection Resource by Working Communication Paths

b) Semann (US 6850483), Method and System for Protecting Frame Relay Traffic Over SONET Rings

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Feben M. Haile whose telephone number is (571) 272-3072. The examiner can normally be reached on 6:00am - 3:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Ngo can be reached on (571) 272-3139. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

10/03/2006

RICKY Q. NGO
SUPERVISORY PATENT EXAMINER